



# ASTM International

## Committee F40 on Declarable Substances in Materials

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# Objectives of this Presentation

- Brief Overview of ASTM
- Committee F40 Overview
- F40 Subcommittees & Current Activities
- Future F40 Meeting

# ASTM International Overview



- Global forum for the development of voluntary consensus standards
- Focus on materials, products, systems, and services
- High technical quality and market relevance
- Guides trade in the global economy

# ASTM History



- Founded in 1898 by engineers and chemists
- Proud partner of industry and government for over 100 years
- Blending tradition with forward-thinking vision



# ASTM Members

- Over 30,000 of the world's technical experts
- More than 125 countries represented
- Create standards that impact our daily lives



# ASTM Technical Committees

## ■ 139 technical committees cover:

- Nondestructive Testing
- Consumer Products
- Nanotechnology
- Petroleum
- Construction/Building Materials & Products
- Plastics
- Homeland Security
- Unmanned Vehicles
- 3-D Imaging Systems
- Paint
- Textiles
- Environmental
- Medical Devices
- Pharmaceutical Manufacturing
- Steel



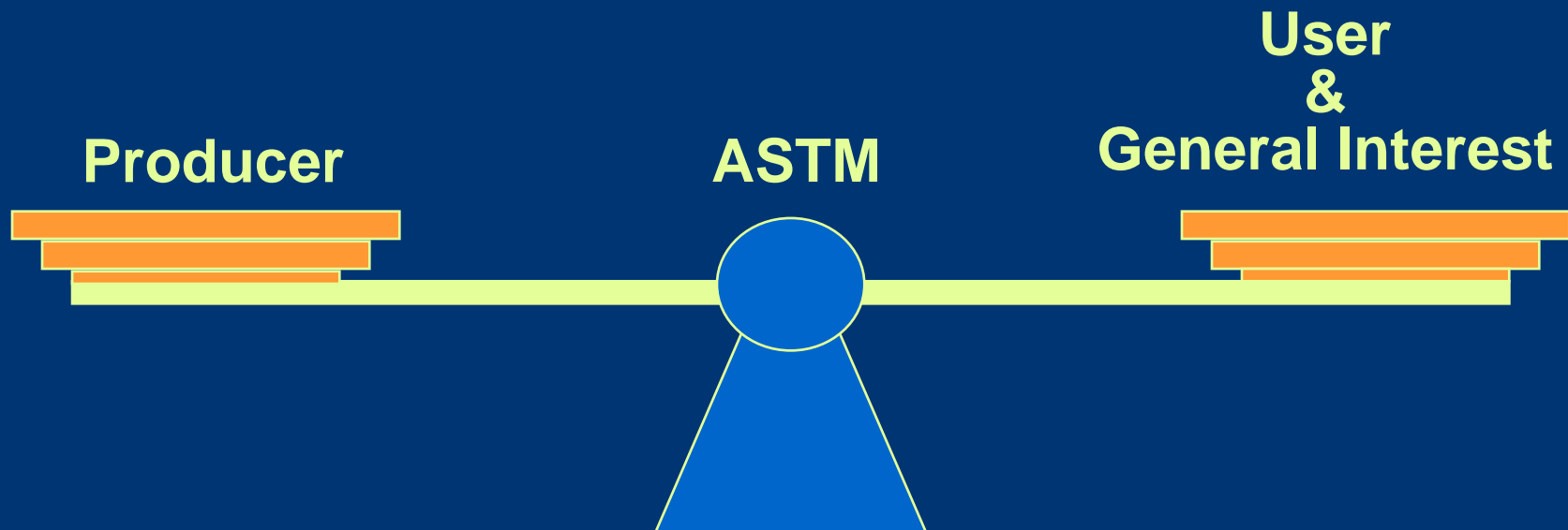


# Open. Transparent. Relevant.

- Open process — all members have equal vote, equal voice
- Engenders public-private sector cooperation
- Process leads to widespread acceptance of ASTM International standards
- High quality standards, strong market relevance



# Balance of Interest



*Technical Committees are balanced.  
No excess influence by any interest group.*





# ASTM – International Standards

- Complies with WTO/TBT principles
- More than 60 nations use ASTM standards as the basis of their regulation or national standards
- Participation by global technical experts



## Committee F40 on Declarable Substances in Materials

*Scope:* Committee shall be the developer of standards for the evaluation of materials/products relative to RoHS (& similar) requirements. The Committee will encourage research in this field and sponsor symposia, workshops, and publications to facilitate the development of such standards. The Committee will promote liaison with other ASTM Committees and other organizations with mutual interests.



# The F40 Approach

## Bottom up

F40 will develop standards focused on testing of raw materials, not parts or finished goods

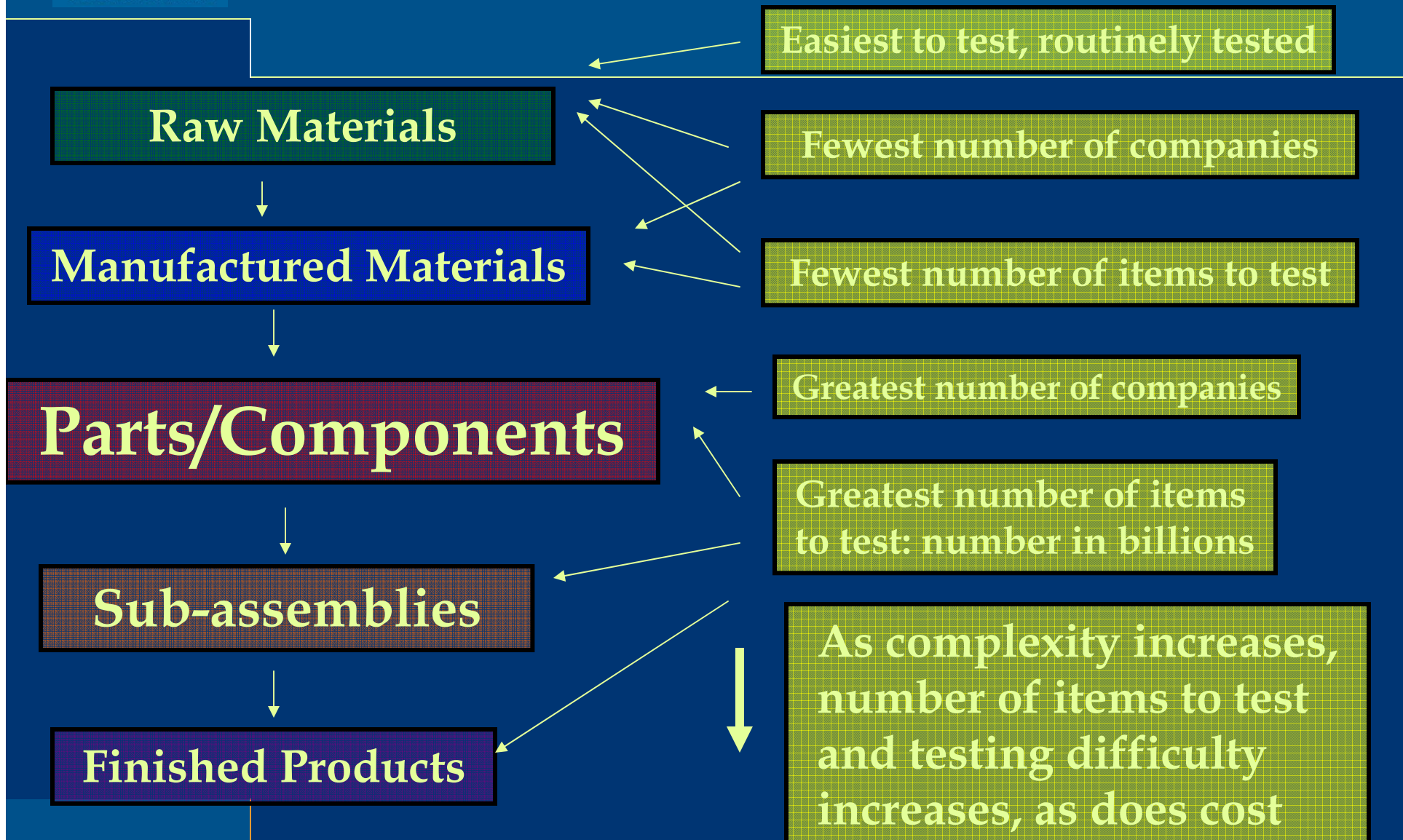
## Benefits

This will ultimately bring cost of compliance down, by allowing the entire supply chain to refer to the raw material purchase order to meet compliance – should make material declaration unnecessary.

## Top down (IEC Method)

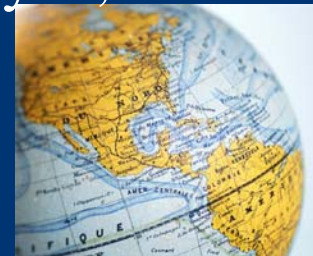
Focus is on grinding the final product to ID presence of substance and confirm/deny compliance. This can be costly (more products than materials = more tests = more expense to industry), and difficult to determine exact source of substance.

# Supply Chain Model - Analysis



## Committee F40 Overview

- Organized on January 13, 2005
- 159 members - 22 International Members - Bolivia, Canada, France, Germany, Japan, Korea Republic of (South), Mexico, Netherlands, Taiwan, United Kingdom
- 123 entities represented –AHAM, NIST, Cabot Corp, US EPA, OECD, TUV Rheinland, IBM, Motorola, NASA, Panalytical, SGS, Maytag, IFI, Bureau Vertias, IMA, Intertek, ACS, APC, DuPont, Thermo Electron Corp, TIA, Hasbro, UL, Whirlpool, Shimadzu, EIA, Honeywell, Sony, Boeing, BASF, Tyco, Toshiba, Perkin Elmer, AT&T, Fisher-Price, etc.



## F40 Officers

- *Chairman:* Timothy J Mc Grady, Serious Science  
e-mail: [tim@seriousscience.com](mailto:tim@seriousscience.com)
- *Vice Chairman:* Andy Ellis, Oxford Instruments Analytical  
e-mail: [andy.ellis@oxinst.co.uk](mailto:andy.ellis@oxinst.co.uk)
- *Recording Secretary:* Anne W Kaplan, DuPont  
e-mail: [anne.w.kaplan@usa.dupont.com](mailto:anne.w.kaplan@usa.dupont.com)
- *Membership Secretary:* Joan M Lawrence, Toy Industry Association Inc  
e-mail: [joan@toy-tia.org](mailto:joan@toy-tia.org)





# F40 Subcommittees

F40.01 Test Methods

F40.02 Management Practices & Guides

F40.03 Monitoring of Legislation & Regulation

F40.04 Existing Document Research/Liaison

F40.90 Executive

F40.91 Terminology

## F40.01 Test Methods



**Scope:** This subcommittee's primary objective is the development of standard test methods related to declarable substances in materials and products to assist the manufacturing supply chains in various industries with compliance requirements. The subcommittee will communicate with internal (ASTM) and external technical committees to further the international acceptability of its efforts

- [WK9866](#) Standard Test Methods for Analysis of Tin-Based Solder Alloys and Pastes for Lead, Cadmium, Mercury, Antimony and Bismuth Using Inductively Coupled Plasma Atomic Emission Spectrometry
- [WK9895](#) Standard Test Method to Screen Materials for Restricted Substances.
- [WK11200](#) Standard test method for identification and quantification of restricted substances in polymeric materials using X-ray Fluorescence (XRF) Spectroscopy



## F40.02 Management Practices & Guides

*Scope:* This subcommittee will establish standards for the management of information for the declaration via paper or electronic means of substances in materials. This will include standards for a declaration of conformance, the disclosure and transfer of test results, general material and substance disclosure and standard practices for the exchange of such information. Assist suppliers and purchasers in harmonizing requests and requirements throughout the supply chain.

- [WK9114](#) Standard Practice for Declaration of Conformance with Materials Content Requirement
- [WK9115](#) Guide for risk assessment when assessing conformance or compliance with requirements



## F40.03 Monitoring of Legislation & Regulation

*Scope:* Subcommittee F40.03 will monitor and report on major government codes, regulations or legislation bearing on Declarable Substances in Materials. The subcommittee will be global in nature and scope. The subcommittee will compile and provide information for Standards Developing Organizations, suppliers and consumers regarding various regulations around the world.

### ■ WK9493 Environmental Legislation & Regulation Database





# F40 Global Legislation & Regulation Database

## ■ Comprehensive Global Regulatory Database

- From United Nations legislations to City ordinances

## ■ Organization

- Geography
- Industry
- Material
- Declarable Substance

## ■ To be publicly available at [www.astm.org](http://www.astm.org)



## F40.04 Existing Document Research/Liaison

*Scope:* The subcommittee collects and monitors standards, test methods, reference materials and measurement procedures that relate to the declaration of substances in materials. Research focuses on standards being used throughout industry and commerce worldwide. The subcommittee communicates with standards developing organizations to support research efforts and the efficient and effective development of new standards.

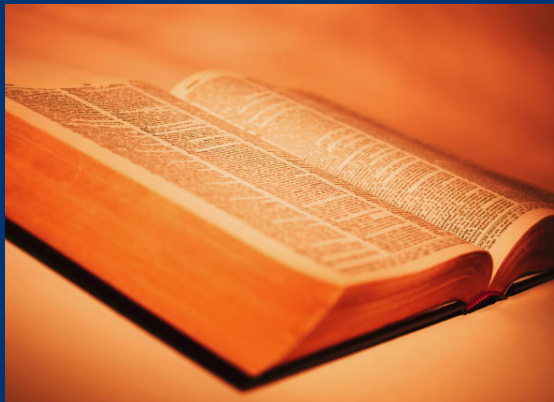
- Discussions underway to develop a database similar to the Global Regulatory Database in order to capture relevant research



## F40.91 Terminology

*Scope:* Subcommittee F40.91 on Terminology is responsible for the overall management of the terminology of Committee F40 on Declarable Substances in Materials...

- **F2576** - Standard Terminology Relating to Declarable Substances in Materials





## F2576 Standard Terminology Relating to Declarable Substances in Materials

- Committee F40 first approved standard
- Approved during the April 2006 Committee Week Meetings
- Comprised of 8 terms
  - Absolute Method
  - Chemical Measurement Process
  - Conformity Assessment
  - Contaminant
  - Detection Limit
  - Percent by Mass
  - Percent by Weight
  - Rounding Method



## Fall Meeting



*October 10-12, 2006*

*Thermo Electron Corporation will be  
hosting ASTM Committee F40 in  
Shanghai, China*

*Events scheduled with NEMA & Shanghai  
Institute for Standardization (SIS)*

# Questions?

## Thank You



## Contact

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